UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,286	03/30/2004	Matthew Compton	282553US8X	4541

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EXAMINER
FINDLEY, CHRISTOPHER G

ART UNIT	PAPER NUMBER
2621	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _17 June 2010_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-7,9-21 and 25-28_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-7, 9-21 and 25-28_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some * c) ☐ None of:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see Remarks, filed 4/21/2010, with respect to the rejection(s) of claim(s)

1-7, 9-21, and 25-28 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore,

the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is

made in view of Compton et al. (US 20030174734 A1).

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b),
> by another filed in the United States before the invention by the applicant for patent or (2) a
> patent granted on an application for patent by another filed in the United States before the
> invention by the applicant for patent, except that an international application filed under the treaty
> defined in section 351(a) shall have the effects for purposes of this subsection of an application
> filed in the United States only if the international application designated the United States and
> was published under Article 21(2) of such treaty in the English language.

3.   **Claims 1-7, 9-21, and 25-28 rejected under 35 U.S.C. 102(e) as being anticipated by**

Compton et al. (US 20030174734 A1, hereinafter referred to as "Compton").

        The applied reference has a common assignee with the instant application. Based upon

the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e).

This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132

that any invention disclosed but not claimed in the reference was derived from the inventor of this

application and is thus not the invention "by another," or by an appropriate showing under 37

CFR 1.131.

        Re **claim 1**, Compton discloses a method of synchronizing the phase of a local image frame

synchronization signal generator of a local video data processor in communication with an asynchronous

switched packet network to the phase of a reference image frame synchronization signal generator of a

reference video data processor also coupled to said network, said local and reference processors having

respective clocks, said reference and local image frame synchronization signal generators generating periodic image frame synchronization signals in synchronism with said reference and local clocks respectively, said method comprising the steps of: frequency synchronizing said local and reference clocks (Compton: paragraph [0010]); said reference video data processor sending, via said network, to said local data processor one image timing packet providing reference image frame synchronization data indicating a difference in timing, measured with respect to said reference processor's clock, between a time at which said image timing packet is launched onto said network and a time of production of a reference image frame synchronization signal (Compton: paragraphs [0010]-[0012]); said local video data processor controlling the phase of production of said local image frame synchronization signals in dependence on said reference image frame synchronization data and a time of arrival of said one image timing packet (Compton: paragraph [0010]; paragraph [0070], the disclosure of Compton may be used in conjunction with a phase synchronizer); and sending to said local video data processor from said reference video data processor, via said network, data packets containing said video data, said image timing packet being sent independently of said data packets (Compton: paragraph [0012]).

Re **claim 2**, Compton discloses that said controlling includes adjusting said time of production of said local image frame synchronization signal by a correction amount derived from a difference between said reference image frame synchronization data and a time, measured with respect to said local processor's clock and said local image frame synchronization signal, of arrival of said timing packet (Compton: paragraph [0035]).

Re **claim 3**, Compton discloses sending to said local processor a plurality of said timing packets from said reference processor (Compton: paragraph [0035], "successive time packets" indicates several are transmitted); and controlling, by said local processor, said timing of said production of said local image frame synchronization signal in dependence on a function of said differences between: reference image frame synchronization data in said timing packets; and respective times of arrival of said timing packets at said local processor (Compton: paragraphs [0036]-[0037]).

Re **claim 4**, Compton discloses that said function is an average of said differences (Compton: paragraphs [0036]-[0037], a cumulative difference is determined).

Re **claim 5**, Compton discloses adding a delay to said local image frame synchronization signal (Compton: paragraph [0038], delay D).

Re **claim 6**, Compton discloses that said delay is a predetermined delay (Compton: paragraph [0038], delay D is fixed).

Re **claim 7**, Compton discloses that said reference data processor includes a source of video data produced synchronously with said reference processor's clock (Compton: Fig. 1, source of video packets 8).

Re **claim 9**, Compton discloses sensing, by said reference processor, when said network has capacity to carry an image timing packet; and sending, from said reference processor, an image timing packet when such network capacity exists (Compton: paragraph [0014]).

Re **claim 10**, Compton discloses that said frequency synchronizing said local and reference clocks includes the steps of: sending to said local data processor from said reference processor, via said network, clock timing packets each providing a destination address of said local processor and reference clock data indicating a time at which said clock timing packet is sent (Compton: paragraph [0010]); and controlling, by said local processor, said frequency of said local processor's clock in dependence on said reference clock data and times of arrival of said clock timing packets (Compton: paragraph [0010]).

Re **claim 11**, Compton discloses counting cycles of said reference processor's clock by said reference processor (Compton: paragraph [0033]); and setting, by said reference processor, said reference clock data as said count of cycles of said reference processor's clock in dependence on a time at which said clock timing packet containing said reference clock data is launched onto said network (Compton: paragraph [0033]).

Re **claim 12**, Compton discloses counting cycles of said local processor's clock by said local processor (Compton: paragraph [0016]); generating, by said local processor, local clock data as a count of cycles of said local processor's clock at a time of receipt of a clock timing packet containing reference clock data (Compton: paragraph [0015]); and controlling, by said local processor, said local processor's clock in dependence on an error signal dependent on a difference between said reference clock data in successively received timing packets and a difference between local clock data indicating said local clock

time at said times of receipt of said timing packets (Compton: paragraph [0015]).

Re **claim 13**, Compton discloses low pass filtering said error signal to generate a low-pass filtered error signal (Compton: paragraph [0017]).

Re **claim 14**, Compton discloses receiving said low-pass filtered error signal in said local processor (Compton: paragraph [0017]); and controlling, by said local processor, said local processor's clock in dependence on said received error signal (Compton: paragraph [0017]).

Re **claim 15**, Compton discloses that said clock timing packet containing said reference image frame synchronization data is independent of said reference clock data (Compton: paragraph [0012], timing packets may be independent).

Re **claim 16**, Compton discloses that said timing packet containing said reference image frame synchronization data also contains said reference clock data (Compton: paragraph [0013], the packets may include both timing data and the data processed synchronously with the reference clock).

Re **claim 17**, Compton discloses aligning, in said local processor, an image of a video signal with said local image frame synchronization signal (Compton: paragraph [0059], video packets are synchronized).

Re **claim 18**, Compton discloses that said image frame synchronization signal is a field or frame synchronization signal (Compton: paragraph [0007], the system incorporates MPEG, which utilizes frames and fields for video).

Re **claim 19**, Compton discloses that said reference image frame synchronization data indicates a difference in timing, measured with respect to said reference processor's clock, between a time at which said image timing packet is launched onto said network and a time of production of an immediately preceding reference image frame synchronization signal (Compton: paragraph [0007], MPEG inherently includes presentation timestamps and program clock references among other synchronization data).

Re **claim 20**, Compton discloses that timing packets carrying information relating to at least two image frame synchronization signals are launched onto said network (Compton: paragraph [0035], "successive time packets" indicates several are transmitted).

Re **claim 21**, Compton discloses a computer readable storage medium encoded with program

code which when executed by a computer cause a processor to carry out the method according to claim 1 (Compton: paragraph [0069]).

Re **claim 25**, Compton discloses a video network, comprising: a reference video data processor including a reference image frame synchronization signal generator and a reference clock generator, said reference synchronization signal generator configured to generate periodic image frame synchronization signals in synchronism with said reference clock (Compton: paragraph [0033]); a local video data processor including a local image frame synchronization signal generator and a local clock generator frequency-locked to said reference clock generator, said local synchronization signal generator configured to generate periodic image frame synchronization signals in synchronism with said local clock, and synchronizing frequency of a local clock from said local clock generator and a reference clock from said reference clock generator (Compton: paragraph [0034]); an asynchronous packet-based network linking said local processor and said reference processor (Compton: paragraph [0031]); said reference video data processor includes a sending unit configured to send, via said network, to said local data processor one image timing packet providing reference image frame synchronization data indicating a difference in timing, measured with respect to said reference processor's clock, between a time at which said image timing packet is launched onto said network and a time of production of a reference image frame synchronization signal (Compton: paragraph [0033]); said local processor including a controlling unit configured to adjust the phase of production of said local image frame synchronization signal in dependence on said reference image frame synchronization data and said time of arrival of said one timing packet (Compton: paragraph [0010]; paragraph [0070], the disclosure of Compton may be used in conjunction with a phase synchronizer); and said reference video data processor sending to said local video data processor, via said network, data packets containing said video data, said image timing packet being sent independently of said data packets (Compton: paragraph [0012]).

Re **claim 26**, Compton discloses a local video data processor including a local image frame synchronization signal generator and a local clock generator frequency-lockable to a reference clock generator at a reference video data processor and configured to connect to said local video data processor via an asynchronous packet-based network, said local synchronization signal generator

configured to generate periodic image frame synchronization signals in synchronism with said local clock,

said local video data processor comprising: a controlling unit configured to adjust the phase of production

of said local image frame synchronization signal in dependence on one received image timing packet

providing reference image frame synchronization data received indicating a difference in timing,

measured with respect to a clock of said reference processor, between a time at which the image timing

packet is launched onto said network and a time of production of a reference image frame

synchronization signal, provided by the image timing packet from said reference clock generator and a

time of arrival of the one image timing packet, and to synchronize frequency of a local clock from said

local clock generator and a reference clock from said reference clock generator, wherein said reference

video data processor sending to said local video data processor, via said network, data packets

containing said video data, said image timing packet being sent independently of said data packets

(Compton: paragraph [0010]; paragraph [0070], the disclosure of Compton may be used in conjunction

with a phase synchronizer).

Re **claim 27**, Compton discloses a reference video data processor, comprising: a reference

image frame synchronization signal generator and a reference clock generator (Compton: paragraph

[0014]); said reference synchronization signal generator configured to generate periodic image frame

synchronization signals in synchronism with said reference clock (Compton: paragraph [0014]); said

reference processor configured to connect via an asynchronous packet-based network to a local video

data processor having a local image frame synchronization signal generator and a local clock generator

frequency-lockable to said reference clock generator, said local frame synchronization signal generator

configured to generate periodic image frame synchronization signals in synchronism with said local clock

(Compton: paragraph [0010]); said reference video data processor including a phase synchronization unit

configured to synchronize a phase of the local image frame synchronization signal generator and a phase

of the reference synchronization generator by sending, via said network, to said local data processor one

image timing packet providing reference image frame synchronization data indicating a difference in

timing, measured with respect to said reference processor's clock, between a time at which said one

image timing packet is launched onto said network and a time of production of a reference image frame

synchronization signal (Compton: paragraph [0010]; paragraph [0070], the disclosure of Compton may be used in conjunction with a phase synchronizer); and said reference video data processor sending to said local video data processor, via said network, data packets containing said video data, said image timing packet being sent independently of said data packets (Compton: paragraph [0012]), wherein frequency of a local clock from said local clock generator and a reference clock from said reference clock generator is synchronized (Compton: paragraph [0015]).

Re **claim 28**, Compton discloses an asynchronous switched network comprising a plurality of nodes, at least one of which nodes is coupled to a data processor that carries out the method of claim 1 (Compton: Fig. 1, asynchronous switched network 6; paragraph [0031]).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is (571)270-1199. The examiner can normally be reached on Monday-Friday (8:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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